AMPLIFIERS

SMC1000 Solid State Microwave Power Amplifier

80 – 1000 MHz • 1kW • Compact Size – 6U • Solid State Reliability

The Instruments for Industry, SMC1000 Solid State amplifier is state-of-the-art and provides outstanding RF performance. The SMC1000 amplifier operates over the frequency range from 80 - 1000 MHz and supplies 1.0kW of CW Power. From the ground up, the SMC1000 amplifier is built to withstand rugged handling, whether it's being shipped to you or hauled around from site to site. This series features heavy-duty aluminum chassis construction with a modular approach for easy access and service. The SMC1000 is perfectly suited for all Military / Avionic and EMC testing as well as general purpose industrial applications.

Operation safety and ease of use are paramount in IFI product designs. The SMC1000 amplifier includes a full complement of RF and hardware protection circuits including high VSWR, over-current, voltage protection, redundant thermal and airflow sensors for the module and the system level. In addition, the SMC1000 includes a state-of-the-art user interface that is sophisticated, comprehensive, and vet simple to use.

The Color Touchscreen shows forward/reverse power indication, system status and self-diagnostic information. Peak power metering is incorporated to measure forward and reflected power while producing pulse power. All the amplifier operating parameters are simultaneously available in the amplifier front panel display as well as over the remote bus. Selection switches allow you to switch the amplifier to the desired mode of operation for local control if the unit is not being operated remotely.

For computer automation both an RS-232 and IEEE interface are provided as standard. To meet individual application needs, the SMC1000 Series amplifiers can be easily customized with other options. With this capability and its reliable elegant design, the SMC1000 series amplifiers are the perfect system for your applications.

Features

- Solid State Design
- Rugged Construction & High Reliability
- **Instantaneous Broadband Frequency**
- Backlit Color Touchscreen screen
- Modular Design Construction
- **Integrated Force Air Cooling**
- Self-diagnostic circuitry
- IEEE-488 interface & RS232 Remote
- Whisper Mode: lower acoustic noise
- Peak power metering





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General Specifications:								
Model	Frequency	Rated Power	Gain	Mains	Weight	Size		
Number	Range (MHz)	(watts minimum)	(dB min)	(kVA)	(Pounds)	(Inches)		
SMC1000	80 - 1000	1000	60	7.0	60 Lbs.	10.5"H x 19"W x 25.25"D		
Standard Features for IFI SMC1000 Solid State Amplifier								
Standard	vSWR Reflected Power Protection, the unit operates without damage or oscillation into any magnitude of phase or load impedance,							
Fastures	Open & Short Circuit Protection.							
reatures.	* Alternate Prime Power (specify at time of order)							
	GPIB IEEE 488 & RS232 Remote Control							
	RF Sample Port on the Front Panel, 112R for rear panel							
	Internal Pre-amplification to obtain rated output power with an input level of 0 dBm or less.							
	Gain Control Local & Remote, 30dB range							
	RF Input/Output Connectors on the Front Panel, 118R for rear panel							
	Internal Systems Diagnostics & Status Indicators							
	Total/Operate Elapsed Time Metering in hours							
	RF Safety Interlock							
	Forward/Reflected Power Indication simultaneously on Front Panel display							

IFI SMC1000 Solid State Amplifier Specifications				
Frequency Range:	80 - 1000 MHz			
Rated Output Power:	1000W			
P1dB Power:	700W			
Gain @ Rated Power:	66 dB			
Prime Power:	As Required (Some are listed below)			
Input/output Impedance:	50 ohms			
RF Input/ Sample Connectors:	Type N Female, unless specified otherwise			
RF Output Connector:	Type SC Female Other connectors available by request or specification			
Input VSWR:	2.0:1			
Output VSWR:	2.5:1			
Operating Temp:	0° to 50° C			
Non-operating Temp:	-40° to 70° C (50,000 feet max)			
Humidity:	95% without condensation			
Altitude:	10,000 feet			
Cooling System:	Air cooled, self contained			
Modulation:	Pulse, AM, FM			
Configuration:	Rack Mountable			
Spurious Outputs:	<-60 dBc nominal			
Harmonics:	-20dBc minimum @ Linear Power			

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SMC1000 Solid State Microwave Power Amplifier

80 – 1000 MHz • 1kW • Compact Size – 6U • Solid State Reliability

Standard Prime Powers:

220, 230, 240VAC ±10% 50/60 Hz, single phase

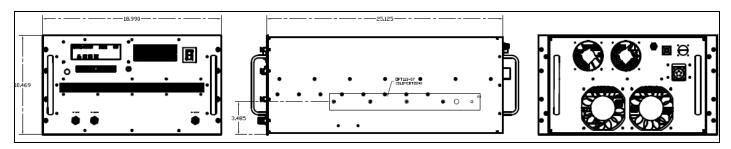
120/208 or 200/220/230/240 VAC $\pm 10\%$ 50/60 Hz, three phase Wye or Delta power is available

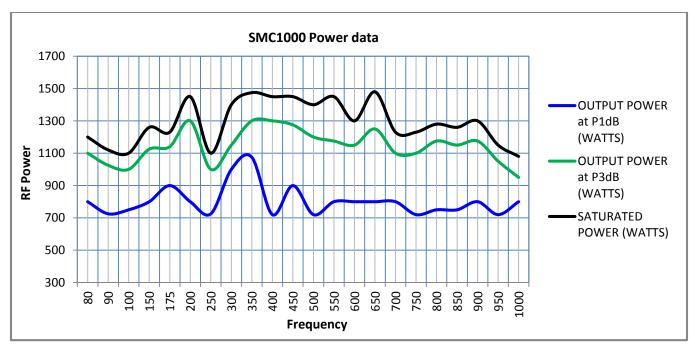
200/220/230/240VAC $\pm 10\%$ 50/60 Hz, three phase Wye or Delta power is available

Special Prime Powers other then listed are subject to availability

Some Available Options for IFI SMC1000 Series Solid State Amplifiers				
Option 110-1E:	GPIB IEEE-488 RS232 and Ethernet Remote Control			
Option 110-2:	GPIB IEEE-488 and RS 422 Remote Control			
Option 110-3	GPIB IEEE-488 and RS 485 Remote Control			
Option 113:	Chassis slides for a 19" rack mounting			
Option 118A:	RF Input On Front Output On Rear			
Option 118B:	RF Input On Rear Output On Front			
Option LC:	Liquid Cooled			

Outline Configuration





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